

IN THE CLAIMS

The text of all claims under examination is submitted, and the status of each is identified. This listing of claims replaces all prior versions, and listings, of claims in the application.

**1. (currently amended):** A method for forming a coating on an inorganic or organic substrate, wherein

- a) a low-temperature plasma, a corona discharge, high-energy radiation and/or a flame treatment is caused to act on the inorganic or organic substrate,
- b) 1.) at least one activatable initiator or 2.) at least one activatable initiator and at least one ethylenically unsaturated compound is/are applied in the form of a melt, solution, suspension or emulsion to the inorganic or organic substrate, there being incorporated in the activatable initiator and/or the ethylenically unsaturated compound at least one group that interacts with a subsequently applied coating or reacts with groups contained therein, with the effect of promoting adhesion, and
- c) the coated substrate is heated and/or is irradiated with electromagnetic waves and an adhesion promoter layer is formed,
- d) the substrate so pretreated is provided with ~~the~~ a further coating which contains reactive groups that react with those of the adhesion promoter layer and/or interact with the adhesion promoter layer.

**2. (original):** A method according to claim 1, wherein the inorganic or organic substrate is in the form of a powder, a fibre, a woven fabric, a felt, a film or a three-dimensional workpiece.

**3. (currently amended):** A method according to claim 1-~~or~~2, wherein the organic substrate is or comprises a synthetic or natural polymer, a metal oxide, a glass, a semi-conductor, quartz or a metal.

**4. (currently amended):** A method according to ~~any one of claims 1-3~~claim 1, wherein the organic substrate is or comprises a homopolymer, block polymer, graft polymer and/or copolymer and/or a mixture thereof.

**5. (currently amended):** A method according to ~~at least one of the preceding claims~~claim 1, wherein the organic substrate is or comprises a polycarbonate, polyester, halogen-containing polymer, polyacrylate, polyolefin, polyamide, polyurethane, polystyrene, polyaramide and/or polyether.

**6. (currently amended):** A method according to ~~at least one of the preceding claims~~ claim 1, wherein the initiator is a compound or combination of compounds from the classes of the peroxides, peroxydicarbonates, persulfates, benzpinacols, dibenzyls, disulfides, azo compounds, redox systems, benzoins, benzil ketals, acetophenones, hydroxyalkylphenones, aminoalkylphenones, acylphosphine oxides, acylphosphine sulfides, acyloxyiminoketones, peroxy compounds, halogenated acetophenones, phenyl glyoxylates, benzophenones, oximes and oxime esters, thioxanthones, ferrocenes, titanocenes, sulfonium salts, iodonium salts, diazonium salts, onium salts, borates, triazines, bisimidazoles, polysilanes and dyes, and also corresponding coinitiators and/or sensitizers.

**7. (currently amended):** A method according to ~~at least one of the preceding claims~~ claim 1, wherein the initiator has at least one ethylenically unsaturated group, especially a vinyl, vinylidene, acrylate, methacrylate, allyl or vinyl ether group.

**8. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein the ethylenically unsaturated compound is used in the form of a monomer, oligomer and/or polymer.

**9. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein the ethylenically unsaturated compound is a mono-, di-, tri-, tetra- or poly-functional acrylate, methacrylate or vinyl ether.

**10. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein ~~the low-temperature as the plasma is run in a gas and the gas there is used air, water, reactive gas, inert gas, or a mixture thereof.~~

**11. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein method step b) is carried out by immersion, spraying, coating, brush application, knife application, rolling, roller application, spin-coating, printing or pouring.

**12. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein ~~the liquid melt, solution, suspension or emulsion~~ used in method step b) contains the initiator(s) in a concentration of from 0.01 to 20 %, preferably from 0.1 to 5 %.

**13. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein the ~~liquid melt, solution, suspension or emulsion~~ used in method step b) contains the unsaturated compound(s) in a concentration of from 0.1 to 30 %, ~~preferably from 0.1 to 10 %~~.

**14. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein the ~~liquids melt, solution, suspension or emulsion~~ used in method step b) may additionally comprise other substances, ~~for example chosen from~~ defoamers, emulsifiers, surfactants, anti-fouling agents, wetting agents and other additives customarily used in the coatings industry.

**15. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein the thickness of the applied layer in the dry state ranges from a monomolecular layer up to 2 mm, ~~preferably from 2 nm to 1000 µm, especially from 2 nm to 1000 nm~~.

**16. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein in method step c) irradiation is carried out using sources which emit electromagnetic waves of wavelengths in the range from 200 nm to 20 000 nm or by means of electron beams, optionally preceded by a drying step.

**17. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein in method step c) irradiation is effected over the whole area or parts thereof.

**18. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein in method step c) partial irradiation is effected and unexposed material is then removed.

**19. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein method step d) is carried out by immersion, spraying, coating, brush application, knife application, rolling, roller application, spin-coating, printing, pouring, lamination, vapour deposition, sputtering or bringing into contact.

**20. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein the coating[[s]] applied in method step d) are organic and/or inorganic materials.

**21. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein the coating[[s]] applied in method step d) are solid or liquid materials.

**22. (currently amended):** A method according to ~~any one of the preceding claims~~ claim 1, wherein the coating[[s]] applied in method step d) are resist materials, paints, colorants, release layers, protective layers, printing inks, adhesives and/or films, woven fabrics, fibres, metallic layers.

**23. (currently amended):** A substrate having a reactive layer, obtainable by a method according to claim 1 at least one of the preceding claims.